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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/575,748	04/13/2006	Kenichi Nagayama	46969-5439	5122
23973 7590 10/07/2008 DRINKER BIDDLE & REATH ATTN: INTELLECTUAL PROPERTY GROUP ONE LOGAN SQUARE 18TH AND CHERRY STREETS PHILADELPHIA, PA 19103-6996				
EXAMINER HANLEY, BRITT D				
ART UNIT		PAPER NUMBER		
2889				
MAIL DATE		DELIVERY MODE		
10/07/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/575,748

Applicant(s)

NAGAYAMA ET AL.

Examiner

BRITT HANLEY

Art Unit

2889

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2008.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3,4 and 7-10 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 3,4 and 7-10 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 29 August 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/S508)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

[01] Amendment filed on 07/02/2008 has been entered and noted by Examiner.

Claims 7-10 have been added, and claims 3, 4, and 7-10 are pending in the application.

Specification

[02] The amendment filed 07/02/2008 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: gap filing part is formed in said common layer other than a conductive highpolymer layer in said organic function layers, and the gap filing part is formed in a plurality of said common layers.

[03] Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 112

[04] The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

[05] Claims 7-10 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

[06] Regarding claims 7 and 8, the specification does not support a gap filling part formed in a plurality of common layers. The specification only discloses that the gap filling part is made from, for example, polyaniline film and acts as the charge transport layer. See also paragraphs 111-115 in the publication of the instant application.

[07] Regarding claims 9 and 10, the specification discloses that the gap filling part is formed from a conductive highpolymer (polyaniline film). Further, since the specification does not disclose that the gap filling part is formed with multiple layers or from other materials, there is no support for the newly added claims 9 and 10.

Claim Rejections - 35 USC § 103

[08] The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

[09] The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

[10] Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keisuke *et al.* (JP 2003-045665).

[11] Regarding claim 3 and 4, Keisuke *et al.* disclose an organic electroluminescence display panel comprising a plurality of organic electroluminescence elements (Figure 1), each of the elements comprising first and second display electrodes (2, 8, Figure 1) and at least one of organic function layers (3, 4, 5, 6, 7, Figure 1) including an emission layer (5, Figure 1) comprising an organic compound (see [0013]), the function layers being sandwiched and stacked between the first and second display electrodes (shown in Figure 1), and a substrate (1, Figure 1) supporting the plurality of organic electroluminescence elements (as shown in Figure 1); wherein the organic function layers include at least one common layer (3, Figure 1) that is formed commonly for the plurality of organic electroluminescence elements (Figure 1) and has charge transport properties (conductive polymer, polyaniline or the like -- see [0012]), and the common layer has a gap filling part extending among the plurality of organic electroluminescence elements (fills gap between each pixel -- see [0024]). Keisuke *et al.* do not explicitly appear to disclose the relationships provided in the instant claims.

[12] Keisuke *et al.* disclose an OLED with an electrically conductive polymer on the first electrode and in between pixels as demonstrated above. Further, Keisuke *et al.* disclose that the conductive polymer can be made of polyaniline and have a set resistance in order to control cross talk between on/off pixels ([0026]). Keisuke *et al.* also teach a 20 nm thick layer of polyaniline (see [0030] - [0032]) as the conductive polymer, just as the instant application does in [0111].

[13] Accordingly, at the time the invention was made, it would have been obvious to a person having ordinary skill in the art having the reference of Keisuke *et al.* to provide a

sheet resistance of the conductive polymer to a set value in order to control cross talk between pixels. And further, since Keisuke *et al.* disclose the same conductive polymer having the same thickness as the instant application, the conductive polymer layer of Keisuke *et al.* is considered to have the same sheet resistances claimed in claims 3 and 4. Therefore, the conductive polymer of Keisuke *et al.* will satisfy the claimed relationships in claims 3 and 4.

[14] Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keisuke *et al.* (JP 2003-045665) as applied to claims 3 and 4 above, and further in view of Fukuda *et al.* (EP 1052708A2).

[15] Regarding claims 7 and 8, Keisuke *et al.* disclose the limitations of claims 3 and 4. Keisuke *et al.* do not explicitly appear to disclose the gap filling part is formed in a plurality of said common layers. However, in the same field of OLEDs, Fukuda *et al.* disclose a gap filling part (42a, 5) is formed in a plurality of common layers (Figure 3). At the time the invention was made, it would have been obvious to a person having ordinary skill in the art having the references of Keisuke *et al.* and Fukuda *et al.* to modify OLED of Keisuke *et al.* to include the gap filling part formed in a plurality of common layers of Fukuda *et al.* in order to reduce leakage current.

[16] Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keisuke *et al.* (JP 2003-045665) as applied to claims 3 and 4 above, and further in view of Nagayama *et al.* (US 6,285,124 B1).

[17] Regarding claims 9 and 10, Keisuke *et al.* disclose the limitations of claims 3 and 4. Keisuke *et al.* do not explicitly appear to disclose a gap filling part is formed in said

common layer other than a conductive highpolymer layer in said organic function layers. However, in the same field of OLEDs, Nagayama *et al.* disclose a gap filling part (GR) formed from a nonconductive highpolymer (column 4, lines 22-26). At the time the invention was made, it would have been obvious to a person having ordinary skill in the art having the references of Keisuke *et al.* and Nagayama *et al.* to modify OLED of Keisuke *et al.* to include the nonconductive polymer of Nagayama *et al.* in order to independently operate the plurality of pixel electrodes.

Response to Arguments

[18] Applicant's arguments filed 07/02/2008 have been fully considered but they are not persuasive.

[19] In response to applicant's argument that Keisuke does not disclose any portion that corresponds to the gap filling part as shown in Figure 5 of the instant application, Examiner disagrees. In paragraphs 23 and 24, Keisuke disclose that the pixels are isolated from each other by the conductive polymer to reduce cross talk.

[20] In response to applicant's argument that Keisuke's range of 10-200nm cannot result in the lower limit values of the sheet resistance of the gap filling part defined in claims 3 and 4, Examiner notes that sheet resistance of the gap filling part is a range and that the prior art need not read on the entire range. Therefore, since Keisuke discloses a structure that results in a sheet resistance value of the gap filling part that reads on the ranges in claims 3 and 4, Keisuke reads on the claimed limitations.

[21] In response to applicant's argument that Keisuke fails to consider the problem in that the order of grayscale levels is reversed when the luminance lowers at pixels in

which leakage current occurs, Examiner notes that the structure of the claims is disclosed by Keisuke and any problem the Applicant attempts to solve is not afforded patentable weight. Further, the claims contain no limitations about the problem being solved.

Conclusion

[22] Any inquiry concerning this communication or earlier communications from the examiner should be directed to Britt Hanley whose telephone number is (571) 270-3042. The examiner can normally be reached on Monday - Thursday, 6:30a-5:00p ET.

[23] If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Minh-Toan Ton can be reached on (571)272-2303. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

[24] Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Britt Hanley/ Examiner, Art Unit 2889	/Toan Ton/ Supervisory Patent Examiner Art Unit 2889
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